cedural blood loss was needed in 2 patients. No coronary event occurred between 48h and discharge, or during follow-up. Local complications occurred in 4 patients (surgical repair 1, blood transfusion 2, false aneurysm 1).

In this early experience, no subacute closure occurred after bailout or elective stenting using intense antiplatelet therapy. Such an approach appears safe and may permit much earlier patient discharge.

11:00

741-3 Prevention of Subacute Occlusion After Coronary Stenting with Ticlopidine Regimen without Intravascular Ultrasound Guided Stenting

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Intravascular ultrasound (IVUS) guiding optimal coronary stent expansion has been proposed in the prevention of subacute stent thrombosis (STT) wich remains the major limitation of coronary stenting. However this strategy, requiring high balloon pressure, enhances the risk of coronary rupture, and increases the time of procedure. We report our experience of coronary stenting using quantitative coronary analysis (QCA) and ticlopidine regimen (500 mg/day) initiated 3 days before PTCA and given for one month after stenting without any anticoagulation. From March 1994 to July 1994 among 587 consecutive PTCA, 208 patients (63 ± 11 yrs) were successfully stented on 235 lesions with 248 stents (223 Palmaz-Schatz, 25 Gianturco-Roubin). Femoral approach was used in 98% of cases with 8F (65%) or 6F guiding catheter (35%). Indications for stenting were elective (70%) or after failed PTCA (30%). The stents were expanded with a non compliant balloon (final diameter = 3.46 ± 0.42 mm) at 10 bars. QCA results were:

	Before stenting	After stenting
Reference diameter (mm)	3.02 ± 0.42	3.21 ± 0.51
Minimal luminal diameter (mm)	0.95 ± 0.48	2.79 ± 0.60*
Diameter stenosis (%)	68 ± 15	13 ± 9*
Area stenosis (%)	88 ± 9	25 ± 16*

* $p < 0.001$

One month major complications included 2 deaths (0.96%), 2 Q-wave MI (0.96%) and 1 emergency CABG (0.5%). SST during the first month occured in 1 pt (0.5%). One pt (0.5%) required external compression for false aneurism and one (0.5%) blood transfusion for gastric hemorrhage.

Conclusion: Pre and post coronary stenting treatment with ticlopidine regimen provides low rate of SST with acceptable vascular bleeding complications. Routine IVUS utility with this regimen remains uncertain.

11:15

741-4 Preliminary Experience Using Protamine to Reverse Heparin Immediately Following a Successful Coronary Stent Implantation

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Previous reports have documented the safety of the treatment only with antiplatelet therapy and no subsequent anticoagulation following stent implantation with optimal stent expansion confirmed by intravascular ultrasound (IVUS). More recently, protamine has been used in selected patients after a successful stent implantation procedure to decrease hematoma formation, and to facilitate early sheath removal and hospital discharge. Lesions were selected on the basis of an optimal angiographic and IVUS result and unimpaired distal runoff. The cohort includes 30 consecutive patients (pts) with 37 lesions (les) that received protamine following a successful stent implantation. All pts were subsequently treated only with antiplatelet therapy and no subsequent anticoagulation. The mean age was 58 ± 11. Indication for stent implantation was elective in 32 les (90%) and emergency for threatened closure in 5 lesions (10%). Vessel distribution was 15 LAD (41%), 15 RCA (41%), 6 LCX (16%), and 1 Left Main (3%). Lesion location was 22 proximal (59%), 11 mid/distal (41%). 51 stents (39 Palmaz-Schatz, 9 Gianturco-Roubin, and 3 Wiktor) were used for an average of 1.4 ± 0.7 stents/lesion. The protamine dose was 41 ± 20 (range 12.5 mg to 50 mg). ACT prior to protamine was 300 ± 69 (range 185 to 481). Angiographic (AG) and IVUS results are below:

	Proximal Reference	Lesion or Stent	Stenosis (%)	Distal Reference
Baseline AG (mm)	3.10 ± 0.50	0.92 ± 0.0.53	(72 ± 16)	2.98 ± 0.48
Post Stent AG (mm)	3.19 ± 0.42	3.04 ± 0.48	(−2 ± 13)	3.06 ± 0.48
IVUS Lumen (mm^2)	9.3 ± 3.0	7.6 ± 1.6		7.1 ± 2.4

There were no acute or subacute stent thrombosis events at 1 month clinical follow up. Vascular complications included 1 pseudoaneuysm treated with external compression and 3 minor hemotomas. Mean hospital stay was 2 ± 2 days.

Conclusions. (1) Protamine given immediately following a successful stent implantation with optimal stent expansion confirmed by IVUS did not cause stent thrombosis. (2) The results of this small cohort would support the feasability of using protamine to facilitate sheath removal and hospital discharge in selected patients after stent implantation assisted by IVUS.

11:30

741-5 Improved Post Stent Management: High Gain at Low Risk

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Prolonged hospital stay, sophiscated anticoagulation and a high number of local puncture site complications are the reasons why coronary stenting, despite its attractive immediate and long term results, is not yet fully accepted. We have tested in 100 consecutive patients a simplified post implant management designed to shorten hospital stay without increasing the risk of subacute thrombosis or bleeding complications. The decision for stenting was always made during angioplasty. There were no preselected cases. All patients had suboptimal results due to elastic recoil or type 2 to 3 dissections. A total of 123 Johnson & Johnson PS-153 stents (24 half stents, 87 full stents and 12 tandem stents) were implanted using high pressure balloons with implantation pressures exceeding 14 bar. The mean reference vessel diameter was 3.2 ± 0.6 mm final balloon size at maximum pressure was 3.4 ± 0.3 mm. In 73% of the stent implants a short balloon was used for the final dilation. Only in 10 patients was the procedure complimented by intravascular ultrasound. The ACT at the time of implant was 346 ± 48 seconds, no further intravenous heparin was given. All sheaths were removed the same day and a FemoStop™ compression device was left in situ at low pressures for 8 ± 3.5 hours. The patients were discharged on day 1 (48 patients) or 2 (52) on low molecular weight heparin 5,000 units SC for 7 days, self administered after instruction. Warfarin was started the day of the procedure and given for 6 weeks and regulated to an INR of 2.5 to 3.5 while the patient was out of hospital. All patients received Aspirin 75 mg per day and a calcium antagonist.

There was 1 subacute thrombosis which was successfully treated by thrombolysis at 16 hours after implant secondary to a non covered distal dissection. We observed 1 femoral false aneurysm responding to compression. 1 patient died 10 days after the procedure from late haemorrhage due to dissection of the iliac artery.

We conclude that a short hospital stay does not increase the risk of thrombotic and bleeding complications after stenting. Stenting with good primary result has a extremely low subacute thrombosis rate. Intravenous heparin after stenting is unnecessary.

11:45

741-6 Percutaneous Trans Radial Coronary Stenting without Coumadin can Reduce Vascular Access Complications and Hospital Stay

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Benestent and Stress studies have demonstrated that the significant reduction of restenosis rate after Palmaz-Schatz stent(S) implantation of de novo lesions was associated with a longer hospital stay and a higher bleeding and vascular access complication rate due to the intensive anticoagulation. Therefore we have studied a new coronary stenting procedure using a 6F transradial approach and a new protocol based on antiplatelet drug combination (Aspirin = 250 mg/day ± Ticlopidin 500 mg/day), low molecular weight heparin and no Coumadin. One hundred and nineteen patients (101 males, 18 females, with a mean age of 61.8 ± 11.6 yrs (32–83) received 154 S in 127 vessels. Stenting was elective in 38% and non elective in 62%. No acute thrombosis occurred. Two major cardiac events were observed: one pt with low LVEF (37%) and 3 vessel disease presented a sudden death 3 days after non elective LAD stent implantation and one pt had a non Q-wave MI due to a side branch occlusion after non elective stenting. The 118 pts discharged 2.9 ± 1.5 days (1–8 days) after procedure and 75% of them within the first 3 days. *Conclusion:* Trans radial coronary stenting is a safe and effective procedure. This new stent delivery procedure can certainly reduce vascular access complications and hospital stay.